

## **Appendix D**

### **IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of

Group 1654

Robert P. Hammer *et al.*

Examiner Russel, Jeffrey E.

Serial No. 10/666,095

Confirmation No. 6953

Filing Date: September 18, 2003

For: Anti-Fibril Peptides (File Hammer 0212.1)

#### **DECLARATION OF ROBERT P. HAMMER**

I, Robert P. Hammer, declare as follows:

**1.**

I am a Professor in the Department of Chemistry at Louisiana State University in Baton Rouge, Louisiana. I am one of the co-inventors of the above-captioned patent application. I make this Declaration in support of this application.

**2.**

I hereby re-confirm the statements made in the Affidavit that was executed by me on December 19, 2005 concerning this application, and also in the Declaration that was executed by me on August 7, 2007. The statements made below supplement those earlier statements.

**3.**

It has recently been brought to my attention that some discrepancies in nomenclature exist among various references that are pertinent to this patent application. In particular, while all relevant references of which I am aware have consistently used the name "AMY-1" to refer to the single peptide Lys-Dibg-Val-Dbzg-Phe-Dpg-(Lys)<sub>6</sub>-NH<sub>2</sub> (SEQ

ID NO: 4), it is nevertheless the case that different references have used the names "AMY-2," "AMY-3," and "AMY-4" to refer to different peptides.

#### 4.

(a) The fourth page of the Aucoin Presentation refers to peptides that are called there "AMY-1," Lys-Dibg-Val-Dbzg-Phe-Dpg-(Lys)<sub>6</sub>-NH<sub>2</sub> (SEQ ID NO: 4); "AMY-2," (Lys)<sub>6</sub>-Dibg-Val-Dbzg-Phe-Dpg-Lys-NH<sub>2</sub> (SEQ ID NO: 19); and "AMY-3," Lys-Dibg-Val-Dbzg-Phe-Dpg-Lys-NH<sub>2</sub> (SEQ ID NO: 6).

(b) Dr. McLaughlin and I jointly conceived the idea that  $\beta$ -sheet blockers could be used to inhibit self-assembly of amyloidogenic proteins, thus reducing amyloid toxicity. Dr. McLaughlin and I then jointly conceived the structures of the peptides having SEQ ID NO: 4, SEQ ID NO: 19, and SEQ ID NO: 6. Dr. Miller conceived the synthesis of the unnatural amino acid dibenzylglycine, which is one of the components of these three peptides. Dr. Fu and I jointly conceived the synthesis of these three peptides from their component amino acids, including the non-standard amino acids. Therefore, it is my opinion that the inventors of the three peptides having SEQ ID NO: 4, SEQ ID NO: 19, and SEQ ID NO: 6 are Dr. McLaughlin, Dr. Fu, Dr. Miller, and me.

(c) To the extent that the Aucoin Presentation at the 225th American Chemical Society conference (March 23-27, 2003) may reflect the conception of any of the inventions of Claims 1, 7, 8, 20, 21, 51-53, and 55, beyond the peptides having SEQ ID NO: 4, SEQ ID NO: 19, and SEQ ID NO: 6, then the named author, Dr. Aucoin, learned of those aspects of the claimed inventions from me or from my co-inventor on those Claims, Dr. McLaughlin, and to that extent the Presentation represents a publication (direct or indirect) of the inventors' own work.

5.

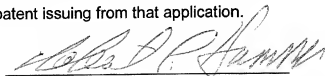
(a) The Fu Dissertation at p. 126 refers to peptides that are called there "AMY-2," Lys-Dibg-Val-Dbzg-Phe-Dpg-NH<sub>2</sub> (SEQ ID NO: 7); "AMY-3," Dpg-Phe-Dbzg-Val-Dibg-(Lys)<sub>7</sub>-NH<sub>2</sub> (SEQ ID NO: 18); and "AMY-4," Dpg-Phe-Dbzg-Val-Dibg-Lys-NH<sub>2</sub> (not identical to any listed SEQ ID NO).

(b) Dr. McLaughlin and I jointly conceived the idea that  $\beta$ -sheet blockers could be used to inhibit self-assembly of amyloidogenic proteins, thus reducing amyloid toxicity. Dr. McLaughlin and I then jointly conceived the structures of the peptides having SEQ ID NO: 7, SEQ ID NO: 18, and the sequence Dpg-Phe-Dbzg-Val-Dibg-Lys-NH<sub>2</sub>. Dr. Miller conceived the synthesis of the unnatural amino acid dibenzylglycine, which is one of the components of these three peptides. Dr. Fu and I jointly conceived the synthesis of these three peptides from their component amino acids, including the non-standard amino acids. Therefore, it is my opinion that the inventors of the three peptides having SEQ ID NO: 7, SEQ ID NO: 18, and the sequence Dpg-Phe-Dbzg-Val-Dibg-Lys-NH<sub>2</sub> are Dr. McLaughlin, Dr. Fu, Dr. Miller, and me.

(c) To the extent that the Fu Dissertation may reflect the conception of any of the inventions of Claims 1, 7, 8, 20, 21, 51-53, and 55, beyond the peptides having SEQ ID NO: 7, SEQ ID NO: 18, and the sequence Dpg-Phe-Dbzg-Val-Dibg-Lys-NH<sub>2</sub>; then the named author, Dr. Fu, learned of those aspects of the claimed inventions from me or from my co-inventor on those Claims, Dr. McLaughlin, and to that extent the Presentation represents a publication (direct or indirect) of the inventors' own work.

6.

All statements made in this Declaration of my own knowledge are true. All statements made in this Declaration on information and belief are believed to be true. These statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified patent application or any patent issuing from that application.

A handwritten signature in dark ink, appearing to read "Robert P. Hammer", is written over a horizontal line.

**Robert P. Hammer**

September 15, 2007

Baton Rouge, Louisiana